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**MEMO**

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Date:

May 20, 2013

ARCADIS Project No.:

SK030326.0001

Subject:

Administrative Order on Consent (SDWA-10-2013-0080) – Liberty Dairy, LLC and its associated Dairy Facility H&S Bosma Dairy - Liberty Dairy and H&S Bosma Dairy Lagoon Review Report

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This memorandum provides a review of available documentation for lagoons located at the Liberty Dairy and H&S Bosma Dairy in accordance with Section III.F.6 of the Administrative Order on Consent (AOC) Scope of Work (SOW) (SDWA-10-2013-0080). Section III.F.6 of the AOC SOW requires that "Respondents shall submit to the EPA a Lagoon Review Report that provides documentation, i.e., plans and specifications signed by a WA licensed engineer that shows existing lagoons are constructed to current WA NRCS 313 standards, including a soil permeability rate not to exceed  $1 \times 10^{-6}$ ." Due to a lack of available documentation regarding the design and construction of the lagoons at the dairies, this memorandum was generated to serve as the Lagoon Review Report.

### **Dairy Lagoon Inventory**

There are a total of 5 lagoons located at the Liberty Dairy (Lagoons 14 through 17 and the Red Water Pond; Figure 1a) and 13 lagoons located at the H&S Bosma Dairy (Lagoons 1 through 13 [includes 4A and 4B]; Figures 1b and 1c).

### **Records Review**

All available information regarding the design and construction of lagoons at the dairies were obtained from the Natural Resources Conservation Service (NRCS) and South Yakima Conservation District (SYCD) offices located in Zillah, Washington. Records regarding lagoons from the NRCS/SYCD offices

were minimal and focused mainly on Washington Department of Ecology Dam Safety Act requirements. It is believed that the design and construction documents for the lagoons from the dairies were misplaced during office relocation activities.

### **Summary**

No professional engineering design and construction plans and or specifications, or other documentation is available to determine whether the lagoons located at either the Liberty Dairy or H&S Bosma Dairy were constructed in accordance with WA NRCS 313 requirements for permeability, as required under Section III.F.6 of the AOC SOW.



A horizontal graphic scale bar with alternating black and white segments. It is marked with '0' at the left end, '600'' at the midpoint, and '1200'' at the right end. Below the bar, the text 'GRAPHIC SCALE' is centered.

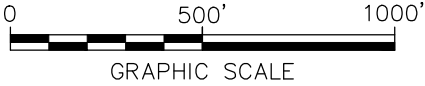
## LAGOON MAP



FIGURE  
1A



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LIBERTY DAIRY, LLC  
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LAGOON MAP



FIGURE  
1B

SOURCE: WASHINGTON 2011 NAIP ORTHO-IMAGERY-18 INCH DATA, WASHINGTON STATE ORTHOIMAGE PORTAL [HTTP://GEOGRAPHY.WA.GOV/ORTHO]



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XREFS: IMAGES: PROJECTNAME: 30326B04.dwg



H & S BOSMA DAIRY  
[Redacted]

LAGOON MAP



FIGURE  
1C

SOURCE: WASHINGTON 2011 NAIP ORTHO-IMAGERY-18 INCH DATA, WASHINGTON STATE ORTHOIMAGE PORTAL [HTTP://GEOGRAPHY.WA.GOV/ORTHO]